

February 19, 2016

North Dakota Public Service Commission Attn: Julie Prescott 600 E. Boulevard, Dept. 408 Bismarck, ND 58505-0480



Dakota Access, LLC
Dakota Access Pipeline Project- Pipeline Terminals
McKenzie, Mountrail and Williams Counties, ND
ND PSC Case No. PU-14-842
Keitu Project No. 569-1099

In accordance with our contract referenced above, Keitu Engineers & Consultants, Inc. (Keitu) is pleased to submit two hardcopies and one electronic copy of the topsoil segregation reports performed for Dakota Access Pipeline Project at the Epping Terminal. These reports represent the last of the six (6) terminals to be inspected for topsoil segregation proficiency.

Keitu appreciates the opportunity to work with you on this project and I hope these reports meet with your approval. If you have questions or comments, please contact me at the phone number above or via email at kspilman@keitu.com.

Kathleen M. Spilman, P.E.

Managing Director

Enclosures: Two Epping Terminal Topsoil Inspection Reports – 2 hardcopies each

CD ROM electronic format report copies

151 PU-14-842 Filed: 2/24/2016 Pages: 7 **Update to topsoil segregation report**

Keitu Engineers & Consultants, Inc.

Kathleen Spilman, P.E.



Date of Inspection: 4 February 2016



Site/Project Location: Epping Terminal

Terminal location property consisting of approximately 20 acres was visited at the start of civil work construction. Inspection of terminal construction sites to focus (1) confirming surface disturbance/work occurring within ND PSC-approved work corridor and/or route; (2) topsoil segregation occurring; (3) vegetation removal consistent with tree & scrub mitigation plan.

Observed Work / Weather Conditions

Visit occurred between 10:30 am to 3:30 pm during mostly sunny skies with increasing clouds in afternoon. Wind 10-15 mph gusting to 18 mph from the SW. No rain or other precipitation. Temperature 26 - 32 °F.

Work was a stand-still for most of the day due to dozer and earth mover break-downs. 1 dozer and 2 earth movers were brought from Trenton site in early afternoon. Topsoil pile stripped from previous site owner was compacted by dozer. Subsoil stripped in the early morning continued to be moved for storage in the center of the site during end of day departure. Material and equipment staging occurring at temporary laydown area at location leased by Matrix, Inc. including construction equipment assembly. While scheduled for today, topsoil removal was delayed due to mechanical problems with site equipment. Topsoil is now planned to be stripped and moved for storage the week of February 8, 2016.

Top Soil Management / Condition / Erosion Control / Stormwater Management

Some topsoil on east side of site was stripped already by previous site owner. Unable to determine whether previous site owner segregated topsoil from subsoil adequately. Depth of topsoil is roughly 10-inches on site. Storm water sediment control measures are in place along east and south borders of site.

Vegetation Condition

Tree row remains along north side of site, and one tree remains on northeast side of site. These trees have been surveyed and accounted for by as mentioned by Darren LeDouex of Matrix, Inc. No evidence of trees being removed currently.

Depth of Cover / Road Crossings / River Crossings / Riparian Condition at HDD Bore Sites

Trenching for pipeline installation not yet started. No bore or road crossings underway.

Deficiencies

Laydown area is planned for the east side of site, however it's temporarily on west side due to landowner dispute. Off-site laydown sites were not previously reported.

Actions Taken/To Be Taken

Upon initial visit, previous site owner segregated topsoil from subsoil. Topsoil is piled on east side of site. Previous site owner also dug a 6-10 foot basin in the same area and piled the subsoil on southwest corner of site. Additional inspections will be needed to deem the topsoil was segregated adequately and whether the subsoil pile is on subsoil.

Keitu Inspector: RJS **Inspection Report Submitted**: 5 February 2016



Report Photo #1 "Work from previous site owner" at GPS Coordinates:

48.285833°N 103.321667°W



Report Photo #2 "Tree shrub row on north side" at GPS Coordinates:

48.286667°N 103.322222°W

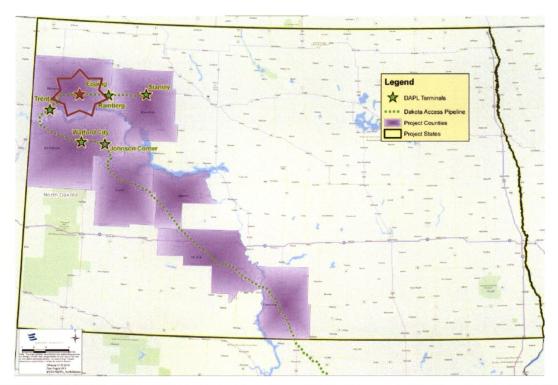


<u>Aerial Photo of Terminal Site Location (North at Top of Map)</u>:



Project Map Site Location:

Epping, ND





Date of Inspection: 10 February 2016



Site/Project Location: Epping Terminal

Terminal location property consisting of approximately 20 acres was visited at the start of civil work construction. Inspection of terminal construction sites to focus (1) confirming surface disturbance/work occurring within ND PSC-approved work corridor and/or route; (2) topsoil segregation occurring; (3) vegetation removal consistent with tree & scrub mitigation plan.

Observed Work / Weather Conditions

Visit occurred between 8:00 am to 10:00 am during mostly cloudy, overcast skies. Wind 7-10 mph gusting to 12 mph generally from the east. No rain or other precipitation. Temperature 26 - 28 °F.

Stock piling stripped subsoil ground was underway by 3 earth movers and 2 dozers. Topsoil was stripped and stock-piled the previous night and early morning west of the subsoil piles. Topsoil and subsoil piles will be hauled off site per landowner request at unknown future date. Subsoil stripping and landscaping for future storage tanks continued during departure. Material and equipment staging still occurred at temporary laydown area on west side of site. Utility Inspection mentioned 15 acres will be used outside the property boundary on east side of site for equipment staging and offices.

<u>Top Soil Management / Condition / Erosion Control / Stormwater Management</u>

Roughly 1 foot of topsoil was stripped and stockpiled on west part of site during overnight hours. Topsoil from subsoil segregation appears adequate. Storm water sediment control measures are in place along east and south borders of site. Maintenance was being performed on the silt fences during site visit.

Vegetation Condition

Tree row remains along north side of site. The one tree on the northeast side of site was removed. These trees have been surveyed and accounted for by as mentioned by Darren LeDouex of Matrix, Inc.

Depth of Cover / Road Crossings / River Crossings / Riparian Condition at HDD Bore Sites

Trenching for pipeline installation not yet started. No bore or road crossings underway.

Deficiencies

Offsite laydown area is planned for the east side of site, however it's temporarily onsite at the west. Per PSC staff, contractor lease laydown sites not subject to PSC order. West side access road does not yet have specified cobblestone road bed installed to limit sediment/soil from being tracked from site per SWPPP.

Actions Taken/To Be Taken

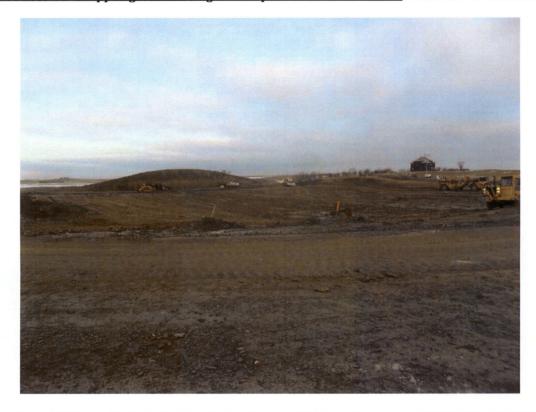
During site visit, Keitu inspector received confirmation that topsoil was stock piled on topsoil grounds. Subsoils piles were stockpiled on subsoils. Keitu inspector advised a scraper to be used when soils are hauled off site to prevent soils from being tracked off site.

Topsoil segregation proficiency by site operators was determined adequate.

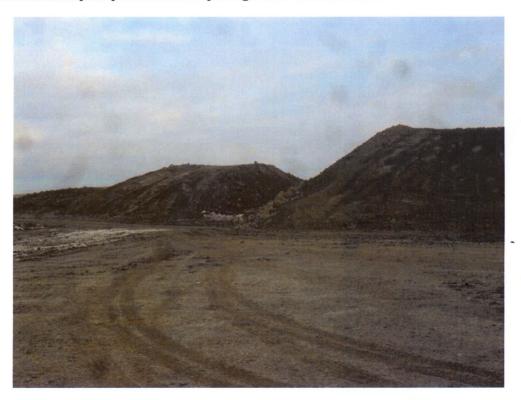
Keitu Inspector: RJS **Inspection Report Submitted**: 12 February 2016



Report Photo #1 "Stripped grounds being landscaped" at GPS Coordinates: 48.285278°N 103.321111°W



Report Photo #2 "Topsoil pile left, Subsoil pile right" at GPS Coordinates: 48.285556°N 103.322778°W



<u>Aerial Photo of Terminal Site Location (North at Top of Map)</u>:



Project Map Site Location:

Epping, ND

